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BRIDGEWATER GROUP, INC.

## Crawford Street Corporation Site Hydrogeologic Conceptual Site Model

TO: Tom Gainer/DEQ  
COPY: Mat Cusma/Crawford Street Corporation  
FROM: Ross Rieke/Bridgewater Group  
DATE: May 22, 2002

This memorandum and attachments provide the information requested by you in your March 27, 2002 email to Mat Cusma and myself. In particular, attached please find:

- Table 1 presenting the measured groundwater elevations in the three temporary groundwater monitoring wells.
- Figure 1 showing the hydrogeologic conceptual site model based on a cross section of the river bank at PP-1.

As shown by the groundwater elevations and the associated conceptual site model, the groundwater sample collected from PP-1 clearly represents the groundwater that would be impacted by any contamination present in the black sand that could possibly migrate to the Willamette River. The lack of any semi-volatile organic compounds in the groundwater sample demonstrates that the black sand does not adversely affect the Willamette River through the groundwater pathway. As noted in the February 26, 2002, *Black Sand Removal Report* and as shown on Figure 1, removal of the black sand from along the edge of the top of the slope and construction of a berm along the edge of the slope prevents migration of the black sand to the river through surface water runoff or sloughing of the black sand.

Based on the groundwater elevations in the other two monitoring wells and the relative Willamette River elevation, groundwater samples from PP-2 and PP-3 are also representative of the groundwater discharge to the river. The lack of contaminants in these wells also indicates that any soil contamination that might be present in the site uplands has not migrated to the river through the groundwater pathway.

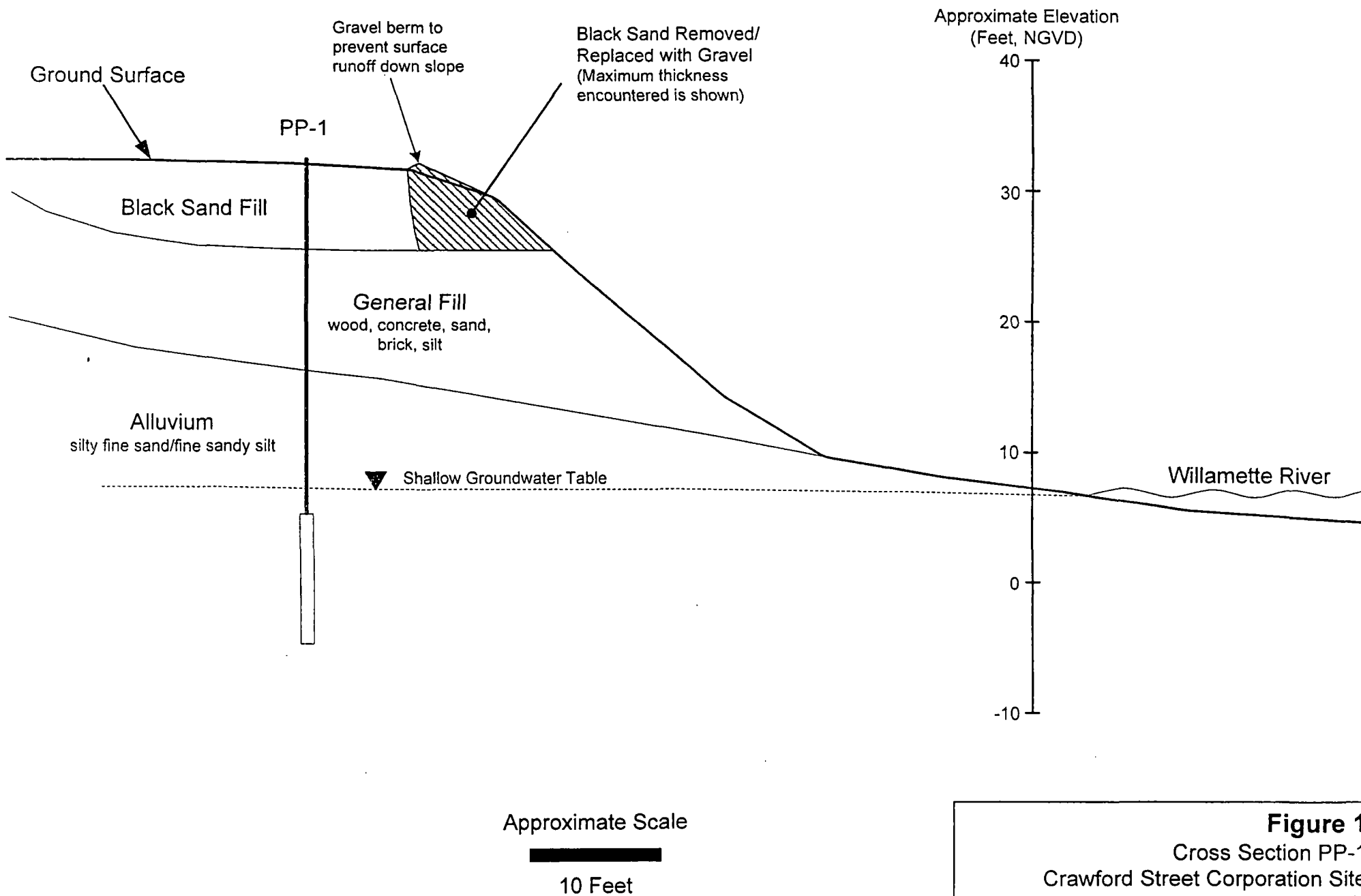
Please call if you have any questions.



**Table 1**  
**Groundwater Elevations in Temporary Monitoring Wells**  
**Crawford Street Corporation**

Monitoring Well	Depth to Screen (ft)	Approximate TOC Elev (ft)	Approximate Ground Surface Elevation (ft)	Date	Depth (ft)	Approximate GW Elev (ft)
PP-1	35	31.5	32.0	4/25/2001	26.8	4.7
				5/16/2002	24.4	7.1
PP-2	35	29.5	30.0	4/25/2001	27.6	1.9
				5/16/2002	25.2	4.3
PP-3	35	27.5	28.0	4/25/2001	28.6	-1.1
				5/16/2002	26.5	1.0
Willamette River				4/25/2001		5
				5/16/2002		7.5

Elevations based on NGDV  
 Willamette River elevation from Morrison Street Bridge gauge



Approximate Elevation  
(Feet, NGVD)

40  
30  
20  
10  
0  
-10

Willamette River

Approximate Scale



10 Feet

**Figure 1**

Cross Section PP-1  
Crawford Street Corporation Site

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